

Grand Slam Tennis Computer Game (Version 2022.1)

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1. Introduction - What is the grand slam tennis program?

The Grand Slam Tennis Program allows you to see how recent grand slam tennis champions would fair against champions from the past. You can choose from more than 100 former men's grand slam champions and more than 95 former Women's Champions.

In addition, you can choose to play the tennis match at the Australian Open, U.S. Open, Wimbledon, or French Open. International tennis matches can also be played, with the option of choosing from many countries around the world. The program is perfect for simulating individual match ups or holding an entire tournament.

This is not a video graphic game. It is a statistical game based on each former tennis player's historical success in playing major grand slam singles events. While some players have a higher probability of success, their performance in any tournament is still subject to the laws of random probability. For example, a player who has had major success in the French Open is likely to do well in the French Open but could still lose to a player who has had less historical success in the French Open.

The statistics used in determining a player's ability is strictly limited to their performance in what is often considered the four tournaments comprising the tennis grand slam (Australian Open, U.S. Open, Wimbledon, or French Open). For a player to be included in this program, they must have won at least one of these major grand slam singles events going back to 1925 when all four major tournaments were played.

2. Options - What are the available playing options?

Currently you can only simulate tennis singles matchups, but eventually doubles matches based on true doubles teams will be an option. Currently, you choose the tournament that you want to simulate, whether it is women or men's singles match, and the players themselves. So, there are three selections you need to make before playing a tennis match.

First, you must choose where you want the match to occur. You may choose to play a match at the U.S. Open, French Open, Australian Open, or Wimbledon. Where you play the tournament is important since each player is rated differently depending on the site of the match. Instead of choosing one of the four grand slam events, you can simply choose to play an international match. When choosing an international match, you must choose not only which two countries will play against each other, but also what country will host the match. International match options are discussed in more detail in section 5.

Second, you should choose whether you want to play a men's or women's singles match. The program will not allow former women grand slam champions to play against former men champions. Since men and women tennis players do not compete against each other, it is not possible to accurately create a statistical model that would allow them to play against each other.

Third, unless you are playing an international match, you must choose the two opponents (the international module will randomly choose a player to represent the two countries that you select). The DOS program will automatically take you to the appropriate selection screens. To select players in the Windows version of the program, make sure you have already indicated whether this is to be a male or female singles match. Then click the "Choose Players" button, this will give you a menu of former male or female grand slam champions. Choose a tennis player from the list and click the "Accept Player1" button, then choose an opponent and click the "Accept Player2" button. Once you have done this you will be back at the main menu, now you just need to click the "Start Match" button and enjoy the match!

3. History - How has the program evolved over time?

The original concept for this program came from a dice throwing game that used a chart that I created which ranked each player according to his or her success in grand slam competitions. From this early concept I begin developing a program using the basic programming software that came with IBM PC computers. The first executable version did not happen until I converted my basic program into a Quick Basic program. Using Quick basic I was thus able to generate an executable form of the program to give to friends. The DOS version of this program continues to this day to be programmed using Quick Basic. Because of the size limitations of Quick Basic, the international matchups had to be programmed as a separate module.

The tennis program is updated four times a year, at which time I recalculate the player's statistics based on the results of the latest grand slam tennis event (Wimbledon, French, Australian or U.S. open). In addition, I try to add enhancements or fixes to the program during each update. The program version number indicates when the program was last updated. For example, a version number 2000.2 means that this version of the program includes all information through the 2000 French open, since the French open is the second grand slam event of the year. The Australian open is the first event, with Wimbledon being the third event followed lastly by the U.S. open.

Finally, starting with version 2001.1 a Windows version of the program was available. The Windows version uses the same statistical model that I use in the DOS version, but the graphical user interface makes the program much easier to use. The Windows version of the program is programmed using Visual Basic. At this time, I plan to continue to enhance the Windows version of the program and only maintain updates to the statistics in the DOS version of the program.

The program is currently not available at any shareware sites, but perhaps that may someday change. Finally, I want to credit Bud Collins Tennis Encyclopedia for providing me with much of the information needed in generating a statistical model. The creation and evolution of my statistical model would have been very difficult without this great resource.

4. How are players chosen and skill determined?

All male and female tennis players who have won a grand slam singles event (U.S. Open, French Open, Australian Open, or Wimbledon) since 1920 will eventually be included in the program. Currently, I am still gathering statistics and adding players. Almost all the players who have won a grand slam singles event in the past 80 years are already included in the program. When completed all grand slam singles champions from 1920 to the present day will be included in the program. During the World War II period between 1940 and 1945, the U.S. open was the only tournament which results counted in player's statistics. While the French open was held, the tournament was restricted to mostly German players, so the results were not included. The program only includes players who have won one at least one grand slam singles event.

A player's performance in this program is based entirely on their performance at grand slam tennis events. Therefore, a player's wins and losses at non grand slam events will not have any impact on their performance. A player should perform better at the grand slam event that they have had the most success at. However, the more success a player has overall the better he or she will perform in general. This does mean that newer stars will have a slight disadvantage since they have had fewer years to accumulate grand slam success.

Currently the program makes no adjustment for how many grand slam events a player has entered. While I am not sure how I would go about adjusting for this, I do believe that someday I may need to do some adjustments to the statistical model based on number of grand slam singles events entered. This would improve the bias against newer players and perhaps older players, where entry into all four grand slam events was not as common.

Finally, we know that in sporting events certain teams or players perform better or worse against certain opponents. However, this program is based on a statistical model that allows players from different generations to compete against each other and so I have not considered a players' success or lack of success against any individual they may have often played against. This seems to me also appropriate given that all players peak at different points in their careers.

Players who have won the most “Grand Slam” singles titles

Rank	Men	Total	Australian Open	French Open	Wimbledon	US Open
1	Rafael Nadal	22	2	14	2	4
2	Novak Djokovic	21	9	2	7	3
3	Roger Federer	20	6	1	8	5
4	Pete Sampras	14	2	0	7	5
5	Roy Emerson	12	6	2	2	2
6	Rod Laver	11	3	2	4	2
6	Björn Borg	11	0	6	5	0
8	Bill Tilden	10	0	0	3	7
Rank	Women	Total	Australian Open	French Open	Wimbledon	US Open
1	Margaret Court	24	11	5	3	5
2	Serena Williams	23	7	3	7	6
3	Steffi Graf	22	4	6	7	5
4	Helen Wills Moody	19	0	4	8	7
5	Chris Evert	18	2	7	3	6
5	Martina Navratilova	18	3	2	9	4
7	Billie Jean King	12	1	1	6	4
8	Maureen Connolly	9	1	2	3	3
8	Monica Seles	9	4	3	0	2

5. Countries available in the International Model

In creating an international tennis module, I had to make two difficult decisions. First, players who played for different countries were usually assigned to the country they were from when they first won a grand slam singles event. Second, when you choose a host country, I tried to decide which playing surface (clay, grass, hard courts, or synthetic) that country is most likely to use in hosting the event. Once I made the surface determination, I used a player's rating on grand slam events held on similar surfaces in determining how well they would perform at this site.

The following countries can be selected:



ARGENTINA:

Men Players: Gaston Gaudio, Guillermo Vilas, Juan Martin Portro

Women Players: Gabriela Sabatini



AUSTRALIA:

Men Players: James Anderson, Malcom Anderson, Bill Bowrey, John Bromwich, Pat Cash, Ashley Cooper, Jack Crawford, Mark Edmondson, Roy Emerson, Neale Fraser, Lleyton Hewitt, Lew Hoad, Rod Laver, Ken McGregor, Gar Moon, John Newcombe, Dinny Pails, Patrick Rafter, Tony Roche, Ken Rosewall, Frank Sedgman, Fred Stolle

Women Players: Daphne Akhurst, Ashleigh Barty, Nancye Bolton, Esna Boyd, Coral Buttsworth, Margaret Court, Evonne Goolagong, Joan Hartigan, Thelma Long, Chris O'Neil, Beryl Penrose, Kerry Melville Reid, Mary Reitano, Samantha Stosur, Lesley Turner, Emily Westacott



AUSTRIA

Men Players: Thomas Muster, Dominic Thiem

Women Players: No Female Representative



BELARUS

Men Players: No Male Representative

Women Players: Victoria Azarenka



BELGUIM

Men Players: No Male Representative

Women Players: Kim Clijsters, Justine Hardenne, Nelly Landry



BRAZIL

Men Players: Gustavo Kuerten

Women Players: Maria Bueno



Men Players: No Male Representative

Women Players: Bianca Andreescu



CHILE

Men Players: No Male Representative

Women Players: Anita Lizana



CHINA

Men Players: No Male Representative

Women Players: Li Na



CROATIA

Men Players: Marin Cilic, Goran Ivanisevic

Women Players: Iva Majoli



CZECH

Men Players: Petr Korda, Jaroslav Drobny, Jan Kodes, Ivan Lendl

Women Players: Barbora Krejčíková, Petra Kvitová, Hana Mandlíková, Martina Navrátilová, Jana Novotná



DENMARK

Men Players: No Male Representative

Women Players: Caroline Wozniacki



EQUADOR

Men Players: Andres Gomez

Women Players: No Female Representative



FRANCE

Men Players: Marcel Bernard, Jan Borotra, Henri Cochet, Jean Renee Lacoste, Yannick Noah, Yvon Petra

Women Players: Marion Bartoli, Francoise Durr, Suzanne Lenglen, Amelie Mauresco, Mary Pierce



GERMANY

Men Players: Boris Becker, Henner Henkel, Michael Stich, Gottfried von Cramm

Women Players: Cilly Aussem, Steffi Graf, Angelique Kerber, Hilde Sperling



GREAT BRITAIN

Men Players: Andy Murray, Fred Perry

Women Players: Sue Barker, Shirley Bloomer, Kitty Godfree, Ann Haydon Jones, Angela Mortimer, Betty Nuthall, Dorothy Round, Peggy Scriven, Emma Raducanu, Christine Truman, Virginia Wade



HUNGARY

Men Players: No Male Representative

Women Players: Zsuzsi Kormoczi



ITALY

Men Players: Adriano Panatta, Nicola Pietrangeli

Women Players: Francesca Schiavone



JAPAN

Men Players: No Male Representative

Women Players: Naomi Osaka



LATVIA

Men Players: No Male Representative

Women Players: Jeļena Ostapenko



NETHERLANDS

Men Players: Richard Krajicek

Women Players: Kea Bouman



NORWAY

Men Players: No Male Representative

Women Players: Molla Mallory



POLAND

Men Players: No Male Representative

Women Players: Iga Świątek



ROMANIA

Men Players: Ilie Nastase

Women Players: Simona Halep, Virginia Ruzici



RUSSIA

Men Players: Yevgeny Kafelnikov, Marat Safin

Women Players: Svetlana Kuznetsova, Anastasia Myskina, Maria Sharapova



SERBIA

Men Players: Novak Djokovic

Women Players: Ana Ivanovic



SLOVENIA

Men Players: No Male Representative

Women Players: Mima Jausovec



SOUTH AFRICA

Men Players: Johan Kriek

Women Players: No Female Representative



SPAIN

Men Players: Carlos Alcaraz, Sergi Bruguera, Albert Costa, Juan Carlos Ferrero, Andres Gimeno, Carlos Moya, Rafael Nadal, Manuel Orantes, Manuel Santana

Women Players: Conchita Martinez, Garbiñe Muguruza, Arantxa Sanchez



SWEDEN

Men Players: Bjorn Borg, Sven Davidson, Stefan Edberg, Thomas Johansson Merv Rose, Mats Wilander

Women Players: No Female Representative



SWITZERLAND

Men Players: Roger Federer, Stanislas Warwinka

Women Players: Martina Hingis



UNITED STATES

Men Players: Andre Agassi, Arthur Ashe, Don Budge, Michael Chang, Jimmy Connors, Jim Courier, John Doeg, Bob Falkenburg, Vitas Gerulaitis, Pancho Gonzalez, Joe Hunt, Jack Kramer, Arthur Larsen, John McEnroe, Chuck McKinley, Alex Olmedo, Frank Parker, Budge Patty, Bobby Riggs, Andy Roddick, Pete Sampras, Dick Savitt, Ted Schroeder, Vic Seixas, Stan Smith, Roscoe Tanner, Brian Teacher, William Tilden, Tony Trabert, Ellsworth Vines, Sidney Wood

Women Players: Tracy Austin, Pauline Betz, Louise Brough, Dorothy Bundy, Jennifer Capriati, Sarah Cooke, Maureen Connolly, Lindsay Davenport, Chris Evert, Shirley Fry, Althea Gibson, Darlene Hard, Doris Hart, Helen Jacobs, Barbara Jordan, Billie Jean King, Alice Marble, Helen Wills Moody, Margaret Osborne, Nancy Richey, Monica Seles, Sloan Stephens, Karen Susman, Patricia Todd, Serena Williams, Venus Williams

6. What are my plans for improving the program?

Of course, feedback from those of you who use this program is important here. If you feel I have left a player out or if it seems a certain player is not performing as you might expect, let me know. All suggestions, criticisms, or things as simple as spelling, grammar corrections would be appreciated. You can send me feedback via my email account: ttriplett13@comcast.net.

One thing I am considering is changing the statistical algorithm to reflect not only the amount of success a player has had in grand slam events, but also their failures at these tournaments. This adjustment would help those players who did not have long careers.

One thing that is certain to continue happening is my debugging and checking the accuracy of the program. This of course is an area where feedback from those of you using this program would be a great help.

Eventually I will enhance the program to include player rankings, a tournament scoreboard, sound, and pictures. I also plan to improve and ease the procedures for getting the latest program updates. Finally, I want to improve the tennis log and statistics log. These are enhancements I will be working on, but again, I would be happy to entertain any suggestions. To check on updates and to keep up with the latest developments periodically check the grand slam tennis program's web site:

<http://www.myberwyn.org/triplett/TENNIS.HTM>